FOOD HANDLERS' CLASS

Preventive Medicine Division
Environmental Health Section
General Leonard Wood Army Community Hospital

Topics

1. Importance of Food Safety
2. Food Service Definitions
3. Food Protection:
    1. Personal hygiene and work habits
    2. Time and temperature discipline
    3. Proper cleaning and sanitizing
    4. General protection measures
4. Water and waste
5. Booth/site setup
    1. Temporary Venders
    2. Bake sale process
6. Inspection process
7. Summary
8. Key points of contact

Importance of Food Safety

FACTORS WHICH CONTRIBUTE TO FOODBORNE ILLNESS :

- FAILURE TO PROPERLY REFRIGERATE FOODS
- ALLOWING FOODS TO REMAIN AT UNSAFE TEMPERATURES
- PREPARING FOODS A DAY OR MORE PRIOR TO SERVING
- INFECTED EMPLOYEES

Importance of Food Safety

- CDC Estimates 76 MILLION food – related illnesses yearly in the US
  - 325,000 Hospitalizations
  - 5,000 Deaths
- Most illnesses caused by unknown agents because only a small percentage of food – related illnesses are reported (i.e. most people tend to “wait it out”)

Importance of Food Safety

- Protect the health of Soldiers and Civilians
- Legal Obligations
  - Department of the Army (TB MED 530: Occupational and Environmental Health Food Sanitation)
  - Federal (Food and Drug Administration Food Code)
  - State (Missouri Department of Health and Senior Services Food Code)

Importance of Food Safety

- Protection of highly susceptible populations
  - Infants, children, pregnant women and the elderly
  - Individuals with pre-existing illness
  - Individuals with compromised immune systems
  - Individuals taking certain medications
    - Antacids
    - Immunosuppressive drugs
  - Soldiers (and others) in a high stress environment
    - Physical/emotional stress
    - Fatigue
    - Extreme conditions

Food Service Definitions

CLEAN

Free of Visible Soil

Food Service Definitions

SANITIZE

To reduce the number of micro-organisms to a safe level using heat or chemicals

Food Service Definitions

CONTAMINATION

The presence of a harmful substance in the food

Food Service Definitions

CROSS CONTAMINATION

The transfer of a harmful substance from one food to another

There are two types: Direct and Indirect

Food Service Definitions

DIRECT CROSS CONTAMINATION

Transfer of a harmful agent from raw foods to cooked or ready-to-eat foods

Food Service Definitions

INDIRECT CROSS CONTAMINATION

Transfer of a harmful agent to foods by hands, utensils or equipment

Food Service Definitions

SPOILAGE

Damage to the edible quality of food

Ex: fruits or vegetables with active mold

Food Service Definitions

FOOD-BORNE ILLNESS

- Salmonella
- Staphylococcus
- E. Coli

An illness transmitted to humans due to the ingestion of food that contains harmful pathogens or toxins

Food Service Definitions

FOOD-BORNE ILLNESS OUTBREAK

Occurs when two or more people experience a similar illness after ingestion of a common food.

Must either be confirmed through epidemiological or laboratory analysis

Food Service Definitions

TEMPERATURE DANGER ZONE

41□F – 139□F

PHFs THAT HAVE BEEN MAINTAINED AT UNSAFE PRODUCT TEMPERATURES (I.E., TEMPERATURE DANGER ZONE) FOR GREATER THAN **FOUR HOURS** CUMULATIVE TIME (FROM PREPARATION TO SERVING) WILL BE CONSIDERED ADULTERATED AND WILL BE **DISCARDED** AS FOOD WASTE.

Food Service Definitions

POTENTIALLY HAZARDOUS FOODS

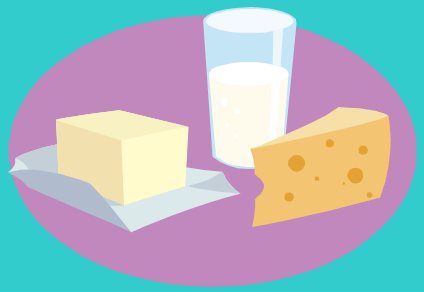
aka: PHF

Foods which allow the rapid growth of bacteria and have a pH of 4.6 or above

Food Service Definitions

Potentially Hazardous Foods

Milk / Milk Products



Eggs

Ice

Meat

Food Service Definitions

Potentially Hazardous Foods

Poultry

Fish

Shellfish

Food Service Definitions

Potentially Hazardous Foods

Crustaceans

Heat treated plant foods

Food Service Definitions

Potentially Hazardous Foods

Baked Potatoes

Synthetic Ingredients

Raw Sprouts

Food Service Definitions

Potentially Hazardous Foods

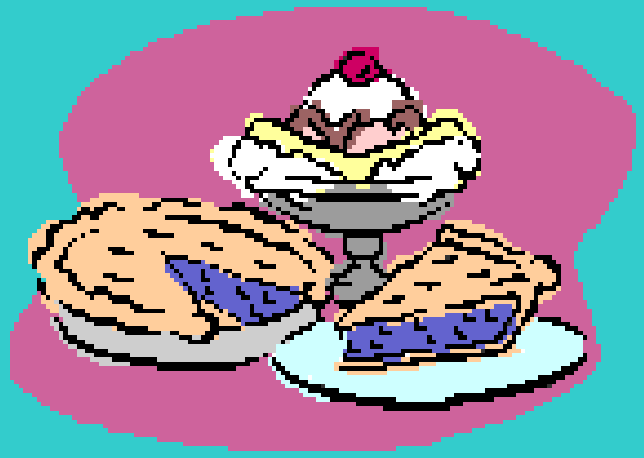
Wild Mushrooms

Tofu

Soy

Food Service Definitions

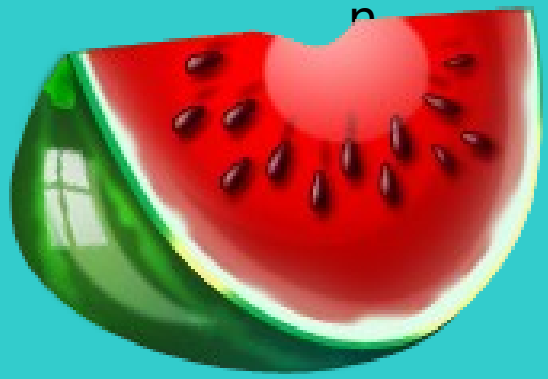
Potentially Hazardous Foods

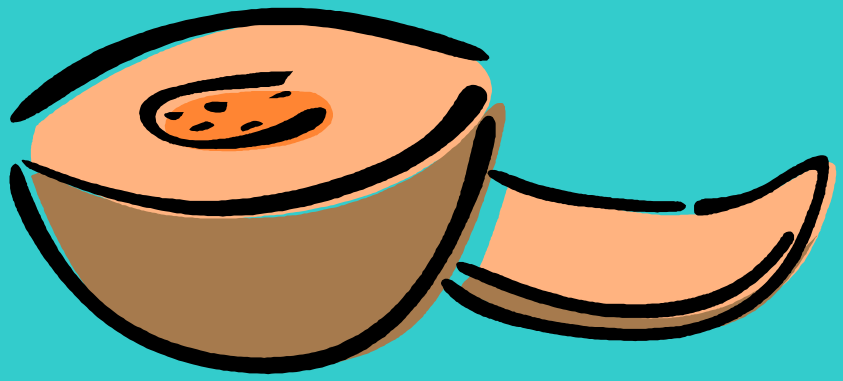


Cream Pies

gravies

Watermelo
n





Cantaloupe

Food Protection

- As defined by the Army, the 3 most common factors for food-borne illnesses are:
  - Poor Personal Hygiene and Work Habits
  - Time and Temperature Abuse
  - Improper Cleaning and Sanitizing

- Additionally, there are General Protection Measures for food safety

FOOD PROTECTION – PERSONAL HYGIENE

HANDWASHING

WASH HANDS AFTER :

FEFORE PUTTING ON NEW GLOVES
TOUCHING HAIR, FACE, ETC.
HANDLING UNCLEAN EQUIPMENT, UTENSILS, ETC.
SMOKING
USING THE RESTROOM
EATING or DRINKING
HANDLING RAW FOOD
SIMPLY IN DOUBT OF CLEANLINESS OF HANDS
SWITCHING TASKS

Handwashing unit must have liquid soap, paper towels, hot/cold running water, trash container & a hand washing sign.

Food Protection – Personal Hygiene

handwashing

1. Wet hands with water as hot as you can comfortably stand
2. Apply soap
3. Vigorously scrub hands and arms for at least 10-15 seconds
4. Rinse thoroughly under running water
5. Dry hands and arms with a single use towel

Turn off faucet and open door (as available) with towel

Food Protection – Personal Hygiene

Fingernails

- Fingernails must:
  - Not extend beyond the fleshy tip of the finger
  - Be neatly trimmed

Not Authorized

- False Fingernails
- Fingernail adornments
- Nail polish

*Must wear single use gloves *

Food Protection – Personal Hygiene
gloves

- Acceptable Gloves:
  - Single-use Gloves (Non-Latex)
  - Slash-resistant gloves
  - Cloth gloves
- All gloves have restrictions...

Food Protection – Personal Hygiene

Single Use Gloves

- Must be used only for one task – used for no other purpose
- Do not blow into the gloves, remember your mouth has lots of bacteria

- Must be discarded when:
  - Damaged
  - Soiled
  - Tasks are changed

Food Protection – Personal Hygiene

Slash-Resistant Gloves

- May only have direct contact with food that will be subsequently cooked
- Single use glove should be worn underneath slash-resistant gloves
- Other contact with food may occur when:
  - Gloves have smooth, durable, non-absorbent outer surface which may be cleaned and sanitized

Food Protection – Personal Hygiene

Cloth Gloves

- May not have direct contact with food unless the food is subsequently cooked
- Must be washed and sanitized at least once daily
- Must be changed when:
  - An interruption in operation occurs
  - Gloves become damaged or soiled

Food Protection – Personal Hygiene

Injuries – Rules and Reporting

- Workers must report cuts, burns and similar injuries on hands and arms to supervisor whether or not they occur during work hours
- Workers should not prepare food with open pimples, boils, oozing sores and similar abrasions

Food Protection – Personal Hygiene

Injuries – On the Job

- If a worker experiences a cut, burn or other minor injury while on the job, they must:
  - Wash the wound
  - Cover the wound with a clean bandage
  - Place a single-use glove over wound site (if on hands)
  - Notify supervisor

- If a worker experiences a serious injury while on the job, they must seek immediate medical attention

Food Protection – Personal Hygiene

Illness

- Workers are obligated to inform supervisor of illness, especially fever, vomiting and diarrhea
- Workers should not prepare or serve food while ill
- Workers who are ill may:
  - Work as cashier

Food Protection – Personal Hygiene
Uniform Standards

- Each worker must:
  - Wear a hair restraint (hair net or hat and beard restraints as applicable)
    - Bangs may not hang out of the front of the hair restraint
  - Take off all jewelry (exceptions: smooth wedding bands, medical alert bracelets/necklaces)
  - Wear closed-toe, closed-heel shoes (no sandals)
  - Sleeves must cover armpits

- Supervisors should follow these standards, but may also wear a watch if not preparing food

Food Protection – Work Habits

Eating and Drinking

- Eating is prohibited in all food preparation areas, aside from proper tasting of food
- Drinks must be in a closed container and kept off of the preparation surface
- All workers must wash hands after eating and drinking before returning to work
- No smoking within 50 feet of the temporary food establishment!

Food Protection – Work Habits

Tasting Methodology

- Workers may not use a utensil more than once to taste food (i.e. no double dipping!)

- Two Utensil Method is best:
  - Use one utensil to place food for tasting onto a sanitary, disposable bowl, plate, etc.
  - Discard the disposable bowl/plate used
  - You may re-use the first utensil, as long as contamination does not occur

Food Protection – Time / Temperature Discipline

Thawing

- Three approved methods:
  - Refrigeration
  - “Freezer to Fryer”
  - Running Water Method
- Refrigeration method is most preferred

- Thawing at room temperature is NOT ACCEPTABLE

Food Protection – Time / Temperature Discipline

Refrigeration Thawing

Gradual thawing of frozen items in a refrigeration unit set at an ambient temperature of 38 – 40 ° F

Food Protection – Time / Temperature Discipline

“Freezer to Fryer” Thawing

Thaw items as they cook

Note: Items must be taken directly from the freezer to the method of cooking (oven, fryer, stove)

Food Protection – Time / Temperature Discipline

Running Water Thawing

Place the item under running water set at an ambient temperature of 70 F or less

Water should be at a pressure high enough to remove loose particles

NOTE: PHFs should be kept in original packaging if possible

Food Protection – Time / Temperature Discipline

Preparation

- Time is critical – Foods cannot stay within the Temperature Danger Zone for longer than 4 hours

- Time is cumulative – Temperature Danger Zone countdown begins with preparation
  - If food is brought to proper temperature, the temperature danger zone countdown resumes

Food Protection – Time / Temperature Discipline

Cooking

- Cooking standards require the following foods to maintain a minimum internal temperature for **15 seconds or longer**:

Food Items	Temp (F)
Poultry **Stuffed Foods**	**165**
Pork Roasts and Chops **Ground Beef** **Eggs (in bulk)**	**155**
Whole muscle meats (beef and lamb steaks / chops) **Fish and Seafood** **Made-to-Order Eggs**	**145**

Food Protection – Time / Temperature Discipline

Holding

- Must have a thermometer to check food temperatures
- Check temperatures every 30 minutes and keep a log
- **All hot foods must be kept at 140 F or higher**
- **All cold foods must be kept at 40 F or lower**

- If foods fall within the temperature danger zone, they must be discarded after four hours

Food Protection – Time / Temperature Discipline

Thermometers

- **Approved** thermometers include:
  - Analog Dial Thermometer
  - Digital Dial Thermometer
  - Infrared Thermometer (for checking surface temperatures)

- **Unapproved** thermometers include:
  - Mercury thermometers
  - Glass thermometers
  - Zone thermometers

Food Protection – Time / Temperature Discipline

Thermometers

- All permanent hot / cold storage devices should have a thermometer placed within the unit
- **Thermometers must be placed closest to door**
- Supervisors must continually check temporary storage units to ensure proper temperatures for frozen, refrigerated and hot foods are maintained

Food Protection – Cleaning and Sanitizing

General Cleaning Guidelines

- A three-compartment sink is required when disposable utensils are not used
- **Food contact surfaces must be cleaned / sanitized between each new food preparation**
- A sanitizing solution should be readily available at all times (but not near food!)

Food Protection – Cleaning and Sanitizing

Three-Compartment Sink

- Used for cleaning all utensils and cooking equipment
- Consists of:
  - **Sink/Bucket 1: Hot, soapy water (110 °F or above)**
  - **Sink/Bucket 2: Clean rinse water (120 °F or above)**
  - **Sink/Bucket 3: Sanitizing bucket with either**
    - **100 ppm Chlorine residual sanitizing solution (75 °F or below)**
    - **180 F water**
    - **Immerse item for 10-15 seconds for both methods**

Food Protection – Cleaning and Sanitizing

Sanitizing Solutions

- Household bleach is the easiest method for creating a sanitizing solution

PPM Bleach Solution	Object to be sanitized	Amount of bleach / gallon water	Amount of bleach per quart (4 cups)
5 ppm	Skin of fruits and vegetables	1/16 teaspoon	N/A
100 ppm	Dishes, pots, utensils	½ Tablespoon	1/3 teaspoon
200 ppm	Food contact surfaces	¼ cup or 4 tablespoons	1 tablespoon

Food Protection – Cleaning and Sanitizing

Hand Washing Stations

- All temporary food establishments must have a properly equipped hand washing station, consisting of:
  - Clean Water
  - Anti-bacterial Soap
  - Disposable Towels

- Hand sanitizer is OK but is not the preferred method of cleaning hands

Food Protection – General Protection Measures

Returned Food

Once in possession of a consumer, returned food may not be offered for resale

Note: This does not apply to unopened condiments or ready-to-eat food

Food Protection – General Protection Measures

Condiments

- **Single service condiment packets are best**
- If squeeze bottles are used, they must be wiped down between meals
- Self-service condiment dispensing stations must have an on-duty attendant

- **Relish bowls / similar open condiment containers are prohibited!**

Food Protection – General Protection Measures

Transportation of Food

- Separate different food types in separate containers
- Do not transport foods with chemicals (ex: gasoline)
- Do not transport foods with trash
- Transport food in clean areas, free of debris and other items which may contaminate food

Food Protection – General Protection Measures

Food Storage

- Store foods in a clean, dry location
- Store foods at least 6 inches above the floor
  - Use of pallets is OK, even if less than 6 inches
- Separate raw, cooked and ready-to-eat foods to avoid cross contamination
- Cover all exposed foods for preparation or sale to protect from insects, dust and other contaminants

Water and Waste

Water Source

- Must be approved – provided, on-site potable water is OK
- Bottled water is OK if from an approved source
- Ice is just cold water and must be protected…

Water and Waste

Ice!

- Use ice properly:
  - Ice chests must be cleaned / sanitized before use
  - Ice scoops or tongs must be used to serve ice to consumers
  - Ice scoops or tongs must be stored in a clean location between use (NOT IN ICE!)
  - Ice chests must be self-draining
- **DO NOT use the same ice for food storage as you use to serve to consumers!!!**

Water and Waste

Waste

- Waste receptacles (aka trash cans):
  - Must have a secure lid
  - **Lid must always be in place when not actively in use**
  - Waste receptacles must have liners (aka trash bags)

Booth and Site Setup

Temporary Food Vendors

- Temporary Establishments must:
  - Provide adequate cover for food and workers
  - Cook food away from consumer service area
  - Not allow smoking or eating at the site by workers
  - Be free of trash
  - Contain a proper hand-washing station
  - Have at least one thermometer
  - Contain proper storage equipment for your food service
  - Have, at minimum, the 3-bucket sanitizing station

Booth and Site Setup

Bake Sales

- All food must be properly covered
- Utensils to serve food must only be used for that singular food item to avoid allergic reactions
- All foods MUST be accompanied by:
  - A full ingredient list
  - A source list for all ingredients used
    - Wal-Mart, commissary, etc.

Inspection Process
Occurs in three parts:

- Pre-Approval Process through Preventive Medicine
- Pre-Opening inspection by Preventive Medicine
- Operational inspections by Preventive Medicine

Note: An example inspection form can be furnished upon request.

Inspection Process
Pre-Approval Process

- Temporary food vendors must submit the “Pre-Approval Inspection Form” to the Environmental Health Section, Preventive Medicine Division at least 96 hours prior to the event

http://glwach.amedd.army.mil/patient_care/pmd/enviro_health.htm

Inspection Process

Pre-Opening Inspection

- List of all personnel working on site
- Pre-Approval Application for review
- All previously mentioned requirements must be met
- Food site manager must be present
- At least two food handlers must be present with their card

FORT LEONARD WOOD
GLWACH

PREVENTIVE MEDICINE DIVISION
ENVIRONMENTAL HEALTH SECTION
(573)329-8744
(573)329-1920

YOUR NAME WOULD GO HERE_____

HAS COMPLETED THE
Certified Food Handlers Course
"*Food Safety Course*"
Instructor:_____
Establishment:_____
Expires:_____

Inspection Process
Operational inspection

- During operations, Preventive Medicine can randomly inspect temporary food establishments and bake sales for food protection purposes.

FOOD HANDLERS' PROBLEMS

How many deficiencies can you find? Name them……

Food Handlers' Pictorial Deficiencies

1. Smoking
2. Eating or food tasting
3. Coughing or sneezing
4. No hair restraint
5. Hands in food
6. Flies
7. Bare Foot
8. Spills on food contact surface
9. Exposed Chest Hair
10. Lack of shaving
11. High Heels
12. Dangling earring
13. Hair falling into food and onto food contact surfaces
14. Chemicals in same area as food (improper storage)
15. Improper storage prepared food (food not covered)
16. Wiping cloth in pocket (not stored in sanitizing solution)
17. Contamination of food (with ashes)
18. Pesticides in facility, not authorized (only certified pest

Summary

- **A Certified Food Handler must be present at all times to ensure that all food protection measures are being followed**
- **Preventive Medicine must approve your establishment prior to setup**
- **Failure to meet all inspection requirements during the event may lead to closure until issues are remediated**
- **The manager aka: YOU are responsible for all topics covered in this class.**

Key Points of Contact

- 2LT Francisca Funke, Chief, Environmental Health:596-4913, francisca.funke@us.army.mil
- SGT Estherlin Babino, NCOIC, Environmental Health: 596-4913,
- Estherlin.Babino@us.army.mil
- Location: Hospital room 124

Questions?

Please visit our website for upcoming class dates and all food-related forms, such as bake sale requests, MWR Unit-Funded requests and Temporary Vendor Permit requests!

http://glwach.amedd.army.mil/patient_care/pmd/enviro_health.htm